Kerr Addison Mines Limited

Annual Report 1977

Flare during production testing of Viking formation gas well located near Edson, Alberta in which Canadian Hunter Exploration Ltd. holds a 50% interest.

Cover — Composite of the Kerr Addison logo painting with scene of Agnew Lake Mines Limited property — September, 1977.

Kerr Addison Mines Limited

DIRECTORS:

Allan Findlay, Q.C.
Partner
Tilley, Carson & Findlay

J. O. Hinds
Executive Assistant to the President
Noranda Mines Limited

William James
President
Kerr Addison Mines Limited

James W. McCutcheon, Q.C.
Partner
Shibley, Righton & McCutcheon

D. G. Neelands, Q.C.
Chairman & Chief Executive Officer
Canada Permanent Mortgage Corporation

J. P. W. Ostiguy
Chairman
Greenshields Incorporated

Alfred Powis
Chairman and President
Noranda Mines Limited

W. H. Rea
Vice-President
The Mutual Life Assurance Company of Canada

W. S. Row
Chairman of the Board
Kerr Addison Mines Limited

M. D. Rowswell
Executive Vice-President
Kerr Addison Mines Limited

D. E. G. Schmitt
Vice-President — Mines
Noranda Mines Limited

OFFICERS:

W. S. Row
Chairman of the Board

William James
President & Chief Executive Officer

M. D. Rowswell
Executive Vice-President

P. S. Cross
Vice-President — Irish Operations

I. D. Bayer
Treasurer

J. B. Sage
Secretary

D. A. Lowrie
Vice-President — Exploration

A. H. Cross
Comptroller

OPERATIONS:

The Kerr Addison Mine
W. G. Hargrave, Manager

Agnew Lake Mines Limited
G. M. Deutman, Manager

Mogul of Ireland Limited
P.S. Cross, Chairman
& Managing Director
W. E. Hitchman, Manager

ANNUAL MEETING OF SHAREHOLDERS:

Monday, April 24, 1978, 12:00 noon
at the Vanity Fair Room,
King Edward Hotel, Toronto

HEAD OFFICE AND EXPLORATION OFFICE:

P.O. Box 91
Commerce Court West
Toronto, Ontario
M5L 1C7

REGISTRARS AND TRANSFER AGENTS:

Canada Permanent Trust Company, Toronto
Registrar & Transfer Company, New York, N.Y.
and Jersey City, N.J.

Financial Summary:

	1977	1976	1975	1974	1973
Millions of Dollars					
Production revenue	$ 44.5	$ 38.4	$ 25.7	$ 37.0	$ 32.7
Investment income	3.3	2.9	5.3	5.7	3.9
Income and mining taxes	4.5	4.6	1.6	7.9	4.5
Net income	6.2	6.8	9.0	15.3	9.9
Dollars Per Share					
Net income	$ .65	$ .71	$ .94	$ 1.61	$ 1.04
Income and mining taxes	.47	.48	.17	.83	.47
Dividends declared	.50	.50	.50	.70	.60
Net value of current assets and investments at market	6.00	9.30	9.83	9.06	12.74

The Gold Picture:

Weekly Average Gold Price, Second Fixing — London Gold Market

Directors' Report to the Shareholders

Operating results for the year ended December 31, 1977, with comparative figures for 1976 are as follows:

	1977	1976
Operating profit	$6,692,000	$5,073,000
Add (Deduct):		
Special Items	(506,000)	1,701,000
Net Profit	$6,186,000	$6,774,000
Net profit per share	65¢	71¢

Increased earnings from the Kerr Addison gold mine due to higher gold prices resulted in the improvement in operating profit to $6.7 million, or 70¢ per share for 1977 compared to 53¢ per share in the previous year. Earnings for 1977 also benefited from the effect of the weaker Canadian dollar on export revenues and from foreign currency translation gains of $0.6 million. Profit contributions by Mogul of Ireland and Canadian Electrolytic Zinc were disappointing, as reduced zinc prices resulted in lower production revenues and unfavourable inventory price adjustments.

Net profit for 1977 amounted to $6.2 million or 65¢ per share and included gains of $1.4 million on sale of investments and fixed assets, less a provision of $1.4 million to cover possible future expenditures for the rehabilitation of mining properties that have been closed and, a provision of $0.5 million to reduce the carrying value of the Company's interest in the mining plant at the Blue Hill Joint Venture to a nominal value. Net profit of 71¢ per share in 1976, included investment profits of $2.4 million, less a write-down of $0.7 million in the Blue Hill assets.

Major capital expenditures during 1977 included $27.8 million on the Agnew Lake project and $20.8 million on gas and oil properties. These expenditures were financed by bank borrowings which increased by $25 million during the year, from proceeds of $18.3 million on sale of borrowed uranium concentrates, and from operating earnings. Working capital declined by $24.1 million to $8.9 million at year-end. The net value of current assets and investments at market decreased to $57 million, or $6.00 per share at December 31, 1977, compared to $9.30 per share a year earlier, reflecting the declines in working capital and in the market value of investments. During 1977, the Company paid dividends of $4.8 million, or 50¢ per share, as in the previous two years. As a result of recent amendments to the Income Tax Act, effective January 1, 1979 the Company will no longer be able to pay dividends out of 1971 capital surplus on Class B shares. Regular dividends paid out of earnings may continue to be declared thereafter on both Class A and Class B shares without any necessity to exchange Class B shares for Class A shares.

Production of gold from the Kerr Addison mine at Virginiatown, Ontario, declined to 106,100 ounces produced from 239,000 tons of ore grading 0.45 ounces gold per ton, compared to 110,740 ounces in 1976 produced from 264,000 tons of ore grading 0.43 ounces gold per ton. Despite the reduced production, earnings increased substantially over 1976 as the price of gold, reflecting the decline in the value of the U.S. dollar in relation to major European currencies, averaged $148 (U.S.) per ounce during 1977 compared to $125 per ounce in 1976. With the improvement in gold prices, small tonnages of ore reserves, which were classified as low grade and considered uneconomic at December 31, 1976 were developed as shrink stopes and brought into production during 1977. At the current level of gold prices, ore reserves are sufficient for approximately two years of profitable operations.

Production at the 75% owned Mogul of Ireland zinc-lead mine, located in County Tipperary, Republic of Ireland, amounted to 931,000 tons grading 6.7% zinc and 2.5% lead compared to the 1,004,000 tons grading 6.2% zinc and 2.3% lead produced during 1976. Despite the reduction in

tons milled, the higher grades of ore treated resulted in production of concentrates at similar levels to the previous year. The overseas producers' price for zinc, which is the basis for pricing Mogul zinc concentrates, began the year at $795 (U.S.) per metric ton, but declined to $700 per ton in May, 1977, to $600 per ton in November, 1977, and to $550 per ton in February, 1978. Although the effect of the sharp reductions in the zinc price on Mogul's earnings was partly offset by improved lead prices, a small net loss was incurred during the fourth quarter of 1977. Due to the weakness in zinc markets, Mogul has agreed to the request by the smelters which treat its concentrates, to reduce 1978 production levels to 85% of capacity. This combination of lower production levels and zinc prices has resulted in Mogul projecting a net loss during 1978. Proven reserves at year-end amounted to 3.6 million tons grading 5.4% zinc and 3.1% lead, a reduction of 0.5 million tons in excess of 1977 production, due to a reclassification of reserves to reflect the lower zinc prices.

Also due to depressed zinc market conditions, the 9.8% owned Canadian Electrolytic Zinc reduction plant in Valleyfield, Quebec, operated at a rate of 425 tons of zinc slab per day during 1977, or 69% of plant capacity. With higher than acceptable zinc metal and concentrate inventories existing at year-end, and no sign of improvements in markets, the plant is expected to operate throughout 1978 at similar levels.

The 90% owned Agnew Lake Joint Venture uranium property, located west of Sudbury, Ontario, continues to encounter problems. Production of 70,000 pounds of U_3O_8 in concentrates during 1977 was substantially below expectations. To date, the operation has been unable to attain the uranium extraction rates indicated in previous test results. It would appear that the low recoveries from the surface ore stockpile, which at year-end contained 450,000 pounds U_3O_8, have been due to a lack of a proper distribution of leach solutions to the surface of the pile resulting in inadequate dispersions throughout the pile. New methods of solution distribution will be introduced to the surface stockpile after spring break-up in an attempt to overcome this problem.

Underground, the complexity of the ore through faulting has necessitated additional development. This, together with overly optimistic performance expectations, has resulted in the quantities of ore broken in stopes being considerably below plan, and has prevented leaching underground on a production scale.

During the next six months, as improved solution distribution methods are applied to the surface stockpile, and as sufficient broken ore becomes available for leaching underground, management expects to be able to report that the extraction process designed for this operation will function as expected.

Preproduction expenditures on the Agnew Lake project were projected to be $13.5 million to mid-1977, with the expectation that production revenues during the second half of the year would be sufficient to offset costs. However, the preproduction phase extended throughout the year, and actual expenditures for 1977 were $27.8 million, or twice the planned levels.

During 1977, deliveries of 900,000 pounds of U_3O_8 to the Swedish Nuclear Fuel Supply Co. and 240,000 pounds to the New England Utilities were made using uranium concentrates borrowed under the 1976 loan agreement with Eldorado Nuclear Limited. These deliveries, together with 600,000 pounds of U_3O_8 borrowed and delivered in 1976, brought the total uranium borrowings at December 31, 1977 to 1,740,000 pounds. In addition, Agnew Lake exercised an option to borrow the remaining 260,000 pounds of U_3O_8 under the agreement, for deliveries during 1978.

In April 1977, Agnew Lake Mines Limited entered into a joint venture agreement with Noranda Mines Limited to earn a 20% interest in Noranda's gas and oil properties and assets which are held by Canadian Hunter Exploration Ltd. as trustee. Agnew Lake agreed to expend $33.75 million during 1977 on gas and oil exploration, development and land acquisition to earn this interest, and to participate proportionately in Canadian Hunter's future operations. The Company arranged a $30 million bank loan for this purpose.

In July 1977, Petromark Minerals Limited entered into a joint venture agreement with Noranda and Agnew Lake, whereby Petromark agreed to spend $28.0 million during 1977 and 1978 on exploration, development and land acquisition within the Canadian Hunter programme, to earn a 10% interest (5 percentage points of Noranda's 80 percentage points and 5 percentage points of Agnew Lake's 20 percentage points) in the gas and oil properties and assets held by Noranda and Agnew Lake through Canadian Hunter. Noranda and Agnew Lake have agreed that one-half of Petromark's expenditure commitment, or $14 million, will be applied to reduce Agnew Lake's original expenditure commitments to $19.75 million. By December 31, 1977, Agnew Lake had expended $20.8 million (including interest costs) and earned a 15% interest in these operations.

A major portion of Canadian Hunter's land acquisition and exploratory drilling activity during 1977 was concentrated in the Elmworth gas area southwest of Grande Prairie, Alberta. Gas production in the Cretaceous Falher Sand was discovered by Canadian Hunter in 1976. This has led to additional exploration drilling and sizeable land acquisitions by Hunter and several other companies in an area extending 70 miles east from the Brtitish Columbia-Alberta border. Canadian Hunter has varying interests in 346,000 gross acres along the trend and has participated in 16 successful gas wells. Gas sales are contracted to commence in late 1979.

Exploration drilling in northeastern British Columbia resulted in new gas discoveries and significant reservoir extensions in the Julienne, Bernadet, Kobes-Townsend and Dahl areas.

During the year, Canadian Hunter's participation in a total of 129 exploration and development wells resulted in production capability being found in 48 oil wells and 60 gas wells, giving an overall drilling success ratio of 84 percent.

Net oil production averaged 739 barrels per day. Average gas production was 8.6 net million cubic feet per day.

Net oil reserves at year-end were 4.1 million barrels proven and 7.3 million barrels proven plus probable. Net gas reserves were 154 billion cubic feet proven and 245 billion cubic feet proven plus probable. Most of the gas reserves were added by exploratory wells which, individually, result in relatively small additions. Land holdings are about 1.8 million net acres.

In early 1978, the evaluation programme on the 60% owned Grum Joint Venture zinc-lead-silver deposit, situated near Faro in the Yukon, was suspended. The Company has concluded that it is not economically feasible to bring this property into production at this time, and that metal prices substantially in excess of present levels would be required to support a separate production facility. Metallurgical studies, including bulk pilot plant runs, carried out during 1977 have indicated that acceptable recoveries and concentrate grades can be obtained from the Grum deposit. Although mine design studies have not been completed, initial indications are that the undiluted geological mineral reserves of 29 million tons of 10.5% combined zinc-lead would be downgraded should the deposit be developed and mined by open pit methods.

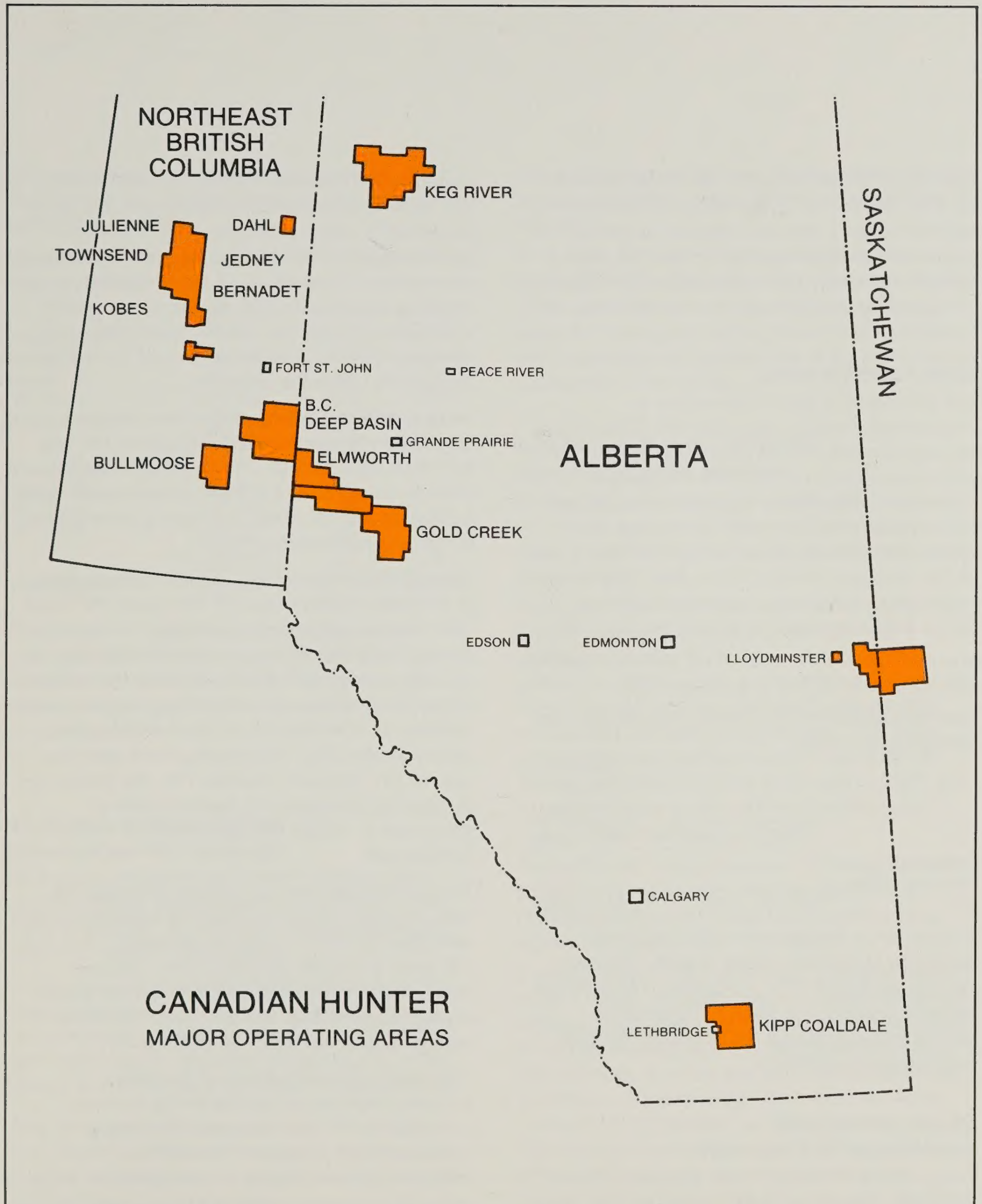
The past year has been disappointing, particularly in that the Agnew Lake project has been significantly behind schedule in producing uranium. However, the Company still expects to attain the annual rate of one million pounds U_3O_8 by the end of 1978. As well, the overseas producers' zinc price was 45% higher in the first quarter of 1977 than the present level of 25¢ (U.S.) per pound. This substantial drop in price has the effect of making waste out of ore and has eroded the profitability of Mogul of Ireland. No short term improvements can be seen in zinc markets.

With the efforts being expended, and the resources available, the Company is confident that the losses at the Mogul of Ireland operation will be minimized and that the difficulties at Agnew Lake will be overcome.

On behalf of the Board,

William James
President.

Toronto, Canada
February 17, 1978



CANADIAN HUNTER
MAJOR OPERATING AREAS

Report on Mining Operations

This report reviews the past year's operations at the Kerr Addison mine, the Mogul of Ireland mine and the Agnew Lake Joint Venture, as well as the suspension of operations at the Blue Hill Joint Venture, the status of the evaluation of the Grum Joint Venture and the exploration activities of the Company.

KERR ADDISON MINE

The Kerr Addison gold mine located at Virginiatown, Ontario, produced 239,000 tons of ore, with a grade of 0.45 ounces of gold per ton, which was milled at a daily rate of 655 tons. Production amounted to 106,100 ounces of gold with a value of $17.2 million. Ore broken by square set methods amounted to 61%, by cut and fill 9%, and by shrinkage mining 30%. Due to the higher grade treated, the operating costs per ounce were maintained at similar levels as 1976.

The work force at the property at year-end was 392, down from 423 at the end of 1976.

Reserves, including an allowance for dilution, are estimated as follows;

	Tons		Ounces of Gold Per Ton	
	1977	1976	1977	1976
Estimated Reserves at year-end	520,300	833,170	0.459	0.462

A reduction in the reserves of 73,700 tons, consisting of 37,800 ounces of gold, has been made in excess of 1977 production. The tonnage reduction occurs as a result of some of the previous reserve blocks becoming unmineable due to ground conditions.

MOGUL OF IRELAND
(Kerr Addison 75% interest)

Production at the Mogul mine, located in County Tipperary, Republic of Ireland, was 931,000 tons averaging 2.5% lead and 6.7% zinc from which 15,115 tons of lead and 53,733 tons of zinc were produced in concentrates resulting in metal recoveries of 65.1% and 86.9% for lead and zinc respectively. A breakdown of the secondary crushing circuit and a 15% production cut-back imposed during the last quarter due to the world oversupply of zinc, resulted in the mill throughput being 6.9% below the plan rate.

Surface diamond drilling on the mine property continued with one machine throughout the year for a total footage of 21,790 feet comprising 56 hole completions. All but three of these holes were located on the "K" zone, delineating the ore zone for underground development.

Mine development continued to be concentrated in the pillar recovery areas of the Upper "G" zone and the down-dip extensions of the "G" and "B" zones. The 2,400 foot exploratory drive to the "K" zone was completed. This ore zone is now subject to an intensive underground drilling programme to confirm ore potential and facilitate development and mine planning. Total development advance was 12,312 feet and prepared 714,789 tons of ore for stoping. Underground diamond drilling amounted to 15,532 feet comprising 127 hole completions.

Total ore broken from all sources was 898,146 tons, of which 67% came from the trackless areas with pillar recovery operations providing 18%. The "B" and "K" zones provided 33%. Longhole drilling amounted to 198,954 feet. Backfill placed underground totalled 161,925 tons. The drilled off reserve at year-end was 158,615 tons.

Total operating cost per ton of ore milled, including exploration and marketing expense, increased 20.7% over last year. The largest increases were for power, concentrate transportation and labour. Expenditures on labour and related benefits increased 15.4% and

accounted for 51.3% of direct operating costs. The inflation rate in Ireland was 10.8% compared to 20.6% for 1976.

Mineable ore reserves, with dilution, at year-end were as follows:

	Short Tons	% Lead	% Zinc
Proven ore			
Upper "G"	1,198,965	1.79	7.56
Lower "G"	159,065	3.90	3.11
"B" Zone	2,228,660	3.74	4.38
Broken	28,029	3.61	7.04
	3,614,719	3.09	5.40
Possible ore			
Upper "G"	166,124	1.35	7.73
"B" Zone	33,050	1.67	7.10
"K" Zone	1,243,671	1.82	4.98
	1,442,845	1.77	5.34
Total Reserve	5,057,564	2.71	5.38

The average number of employees during the year was 559. Annual turnover amounted to 5%. All labour agreements are in good standing. The National Wage Agreement is currently the subject of re-negotiation.

BLUE HILL JOINT VENTURE
(Kerr Addison 60% Interest)

Mining and milling at this property located near Blue Hill, Maine were suspended during the third week of October, as not even a cash breakeven operation could be maintained.

Production at the property during the year to the time of suspension amounted to 143,200 tons of ore at average grades of 1.1% copper and 5.7% zinc, from which 1,300 tons of copper and 7,680 tons of zinc metal were produced in concentrates.

Operating equipment was pulled out of the mine, then cleaned, painted and stored in the mine yard. All mine openings have been closed with concrete bulkheads as required by law.

The surface plant has been cleaned down and is being kept on a care and maintenance basis at this time.

In an effort to prevent the sulphide tails from oxidizing and thereby becoming a pollution threat to the area, the higher dry portion of the tailings pond will be covered with one foot of glacial till and vegetated and, the balance of the pond will be submerged under water.

AGNEW LAKE JOINT VENTURE
(Kerr Addison 90% Interest)

During 1977, surface plant construction was completed and initial production commenced. Many problems were encountered and most have now been resolved.

From the time of plant tune-up in June to year-end, a total of 70,400 pounds of U_3O_8 was produced. Of this, 61,700 pounds was from surface stockpile leaching and 8,700 pounds was from underground leaching which commenced on a limited tonnage late in the year. This poor production performance resulted from a lack of broken ore which could be subjected to leach and a very inefficient system of solution distribution over the ore which was available.

Production of U_3O_8 in January 1978 was 18,000 pounds and in February was 25,000 pounds, reflecting additional broken ore in underground stopes being put to leach this year.

Development in 1977 amounted to 25,800 feet in access ramps, haulageways and stope sillways. In addition, 2,493 feet of ventilation raise was bored. From this development 244,600 tons of ore and 303,500 tons of waste was produced and hoisted to surface. Stope blasting was behind schedule during most of the year, as considerable extra development became necessary at the sill levels due to faulting of the ore which had created greater widths by over thrusting. As well, blasthole

drilling performance was below expectations. Production blasting in stopes amounted to 414,000 tons of which 26% was extracted as "swell" and hoisted to surface.

The quantity of uranium recovered from the surface stockpile during 1977 reflects poor surface distribution of solutions. In addition, leaching of the surface stockpile was greatly inhibited by the protracted periods of downtime of the surface plant. Originally, it had been felt that a system of sprays could be used to give complete coverage over the pile. This method, however, had to be abandoned due to the possibility of wind drift beyond the limits of the environmentally protected leaching area. Surface leach distribution systems being used in the southwest United States have been investigated and it is believed that by early spring of 1978 a satisfactory system will be in use at this operation.

The process for the recovery of uranium from leach solutions is one of continually increasing the concentration of uranium in solution and eliminating other undesirable elements which have been taken into solution at the same time as the uranium. This is done at Agnew Lake in the surface plant through ion exchange, solvent extraction, precipitation, thickening, and washing in centrifuge. The discharge from the centrifuge is then dried and packaged as "yellow cake" which contains in excess of 80 percent U_3O_8. At Agnew Lake, there are two ion exchange systems in parallel. Early in June, with construction and equipment installation still in progress, it became possible to feed uranium bearing solutions from surface stockpile leaching through one of the two ion exchange systems and other process stages through to the "yellow cake" thickener on a plant break-in basis. In addition to the normal problems of plant start-up, such as leaking pipelines and faulty automatic valves and controls, some of the materials of construction in the process equipment failed and this required minor redesign and considerable downtime for fabrication and replacement.

Provision was made in the original plant layout for a third ion exchange system. This addition has been ordered and should be installed during the third quarter of 1978. It will provide plant flexibility and potential additional production capacity.

By year-end, the problems within the surface plant had been resolved and process optimization was in progress. Development, stope drilling and blasting had risen to the required production rates. The mine ventilation system is working as designed and, as a result, no underground employees were exposed to excessive radiation levels. Underground diamond drilling during the year amounted to 66,200 feet, mostly for ore definition. Proven and probable reserves estimated at December 31, 1977 were 12,000,000 tons at a grade of 1.05 lbs. U_3O_8 per ton.

GRUM JOINT VENTURE
(Kerr Addison 60% Interest)

During 1977, work at the site, located near Faro, Yukon Territory, was limited to the extraction of approximately 250 tons of ore grade material for metallurgical treatment at the pilot milling facilities of Lakefield Research Laboratories, and to geotechnical field work related to surface plant requirements.

The pilot plant run confirmed that acceptable concentrate grades for zinc and lead can be produced at metal recoveries in the low 80 percent range. This work also indicated that a very fine grind will be required and, that the concentrates will have high levels of contained mercury.

Other areas under study during 1977 were a process flow sheet design, plant building and site arrangements, water supply and tailings disposal.

All geological data has been computerized in an effort to utilize this means of assessing the effects of different economic and operating constraints on the development and ultimate size of an open pit.

At year-end, work on open pit mining evaluation was continuing. However, at the present time, it is not known whether the most economic mining approach to the Grum deposit would be by open pit or by underground methods.

Estimated geological reserves, including the contiguous mineralization of the Vangorda Joint Venture, without regard for dilution or mining method and assuming a combined cut-off grade of 4% zinc/lead, are 28,750,000 tons with a grade of 6.4% zinc, 4.1% lead and 1.9 ozs. silver. The diluted grade of this reserve is not known at this time but it will be dependent upon the mining method and, it would likely be significantly lower than the grade of the present geological reserves.

EXPLORATION

Exploration expenditures continued on property situations and on ''grass roots'' projects where costs were shared on a joint venture basis. No mineable ore bodies were found during the year. Of a total expenditure of $3,226,000, approximately one-third of which was recovered from joint venture participants, 75% was spent in Canada and 25% was spent in the United States. Exploration was focused on uranium in the Provinces of British Columbia, Saskatchewan, and Ontario, as well as on the Fernandez Joint Venture in the State of New Mexico.

Toronto, Canada
March 1, 1978.

Kerr Addison Mines Limited

(Incorporated under the laws of Ontario)

Consolidated Balance Sheet

December 31, 1977
(with comparative figures at
December 31, 1976)

ASSETS	1977	1976
Current:		
Cash, term deposits and short-term notes	$ 7,857,000	$ 18,769,000
Marketable securities and short-term investments, at cost (quoted market value 1977 — $9,294,000; 1976 — $14,616,000)	9,297,000	11,684,000
Concentrates, bullion and metals awaiting settlement, in transit and on hand	15,820,000	12,547,000
Accounts and interest receivable (note 4)	14,585,000	2,643,000
Supplies and materials, at cost	3,839,000	3,067,000
Prepaid expenses	283,000	214,000
Total current assets	51,681,000	48,924,000
Investments:		
Other mining companies (note 6)	27,361,000	27,361,000
Sundry, at cost	840,000	1,019,000
	28,201,000	28,380,000
Fixed (note 7):		
Property, plant and equipment, at cost	45,423,000	52,645,000
Less accumulated depreciation and depletion	29,835,000	34,086,000
	15,588,000	18,559,000
Deferred exploration and development expenditures:		
Agnew Lake property (note 2)	61,718,000	33,873,000
Gas and oil properties (note 4)	20,753,000	
Grum Project (note 5)	7,906,000	6,929,000
Other	637,000	571,000
	91,014,000	41,373,000
Other:		
Proceeds from sale of borrowed uranium concentrates, in escrow (note 2(b))	34,065,000	
	$220,549,000	$ 137,236,000

(See accompanying notes to consolidated financial statements)

LIABILITIES

	1977	1976
Current:		
Bank loan	$ 28,000,000	$ 3,000,000
Accounts payable and accrued charges	8,463,000	6,990,000
Income and mining taxes payable	6,357,000	6,015,000
Total current liabilities	42,820,000	16,005,000
Provision for environmental costs (note 9(a))	2,000,000	
Deferred income taxes	8,092,000	7,344,000
Deferred revenue (note 2(c))	76,187,000	23,820,000
Minority interest in subsidiaries	1,745,000	1,837,000
Shareholders' equity:		
Share capital (note 8)	41,550,000	41,489,000
Earned surplus	48,155,000	46,741,000
	89,705,000	88,230,000
	$220,549,000	$ 137,236,000

On behalf of the Board: W. S. Row, Director William James, Director

Auditors' Report

To the Shareholders of Kerr Addison Mines Limited:

We have examined the consolidated balance sheet of Kerr Addison Mines Limited as at December 31, 1977 and the consolidated statements of operations, earned surplus and changes in financial position for the year then ended. Our examination of the financial statements of Kerr Addison Mines Limited and those subsidiaries of which we are the auditors was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances. We have relied on the report of the auditors who have examined the financial statements of a subsidiary company, Mogul of Ireland Limited.

In our opinion, subject to the satisfactory resolution of the matters referred to in note 2(a) and in note 3, these consolidated financial statements present fairly the financial position of the company as at December 31, 1977 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Clarkson, Gordon & Co., Chartered Accountants
Toronto, Canada, February 9, 1978.

Kerr Addison Mines Limited

Consolidated Statement of Operations

For the year ended December 31, 1977 (with comparative figures for 1976)

	1977	1976
Mine operations: Value of production	$ 44,460,000	$ 38,408,000
Cost of metal production	30,120,000	25,675,000
	14,340,000	12,733,000
Dividends and interest income (net of interest expense 1977 — $120,000; 1976 — $360,000)	3,262,000	2,890,000
	17,602,000	15,623,000
Deduct (add): Administrative and general expenses	610,000	673,000
Outside exploration expenses	2,123,000	2,322,000
Depreciation and depletion	3,246,000	2,617,000
Income and mining taxes	4,823,000	4,198,000
Minority interest in profits of subsidiary companies	692,000	811,000
Foreign currency translation gain	(584,000)	(71,000)
	10,910,000	10,550,000
Profit before the following	6,692,000	5,073,000
Add (deduct): Gain on sale of investments and fixed assets (net of income taxes 1977 — $255,000; 1976 — $505,000)	1,406,000	2,351,000
Write-down in carrying value of property, plant and equipment (net of income taxes in 1976 of $70,000) (note 7)	(512,000)	(650,000)
Provision for environmental costs (net of income taxes — $600,000) (note 9(a))	(1,400,000)	
Net income for the year	$ 6,186,000	$ 6,774,000
Net income per share	$.65	$.71

(See accompanying notes to consolidated financial statements)

Consolidated Statement of Earned Surplus

For the year ended December 31, 1977 (with comparative figures for 1976)

	1977	1976
Balance, beginning of year	$46,741,000	$44,736,000
Add net income for the year	6,186,000	6,774,000
	52,927,000	51,510,000
Deduct dividends (50¢ per share)	4,772,000	4,769,000
Balance, end of year	$48,155,000	$46,741,000

Consolidated Statement of Changes in Financial Position

For the year ended December 31, 1977 (with comparative figures for 1976)

	1977	1976
Source of funds:		
Net income for the year	$ 6,186,000	$ 6,774,000
Add charges to income not requiring an outlay of funds in the current period —		
Depreciation and depletion	3,246,000	2,617,000
Other non-fund items (net)	3,952,000	1,096,000
Funds from operations	13,384,000	10,487,000
Proceeds on sale of uranium concentrate (1977 — $52,367,000 less portion thereof placed in escrow, $34,065,000) (note 2)	18,302,000	23,820,000
Proceeds on sale of investments and fixed assets	235,000	4,886,000
Decrease in sundry investments	179,000	
Issue of shares for cash (note 8(b))	61,000	13,000
	32,161,000	39,206,000
Application of funds:		
Expenditures on Agnew Lake property (net) (note 2(a))	27,845,000	16,470,000
Expenditures on gas and oil properties (note 4)	20,753,000	
Dividends	4,772,000	4,769,000
Deferred exploration and development expenditures — Grum Project and other	1,043,000	3,404,000
Additions to property, plant and equipment	1,022,000	910,000
Decrease in minority interest in subsidiaries	784,000	1,317,000
Acquisition of 75% share interest in Mogul of Ireland Limited for $9,152,000 less working capital acquired of $338,000		8,814,000
Acquisition of additional 8.3% share interest and debentures in Agnew Lake Mines Limited		4,575,000
Increase in investment in other mining companies		21,000
	56,219,000	40,280,000
Decrease in working capital	(24,058,000)	(1,074,000)
Working capital, beginning of year	32,919,000	33,993,000
Working capital, end of year	$ 8,861,000	$32,919,000

(See accompanying notes to consolidated financial statements)

Kerr Addison Mines Limited

Notes to Consolidated Financial Statements

December 31, 1977

1. **Summary of significant accounting policies**

(a) Basis of presentation of financial statements —
The accompanying financial statements include, on a consolidated basis, the accounts of Kerr Addison Mines Limited and its subsidiary companies (some of which are non-operating):

	Percentage ownership
Agnew Lake Mines Limited	100%
Keradamex, Inc.	100%
Kerramerican, Inc.	100%
Normetal Mines Limited	100%
Quemont Mines Limited	100%
Mogul of Ireland Limited	75%
Vangorda Mines Limited	70.1%
Joutel Copper Mines Limited	63.3%

The Blue Hill (60% interest) and Icon Sullivan (21.4% interest) joint ventures, both of which are now inactive, are included in the consolidated accounts on the basis of the company's proportionate share of the assets, liabilities, revenues and expenses relating thereto. (See also note 7.)

(b) Exchange translation —
The financial statements of companies outside of Canada have been translated into Canadian dollars as follows: current assets and current liabilities at exchange rates prevailing at the year-end; fixed assets, depreciation and depletion provisions on the basis of rates prevailing at dates of acquisition, and income and expenses (other than depreciation and depletion) at average rates during the year. Exchange gains or losses resulting from such translation practices are reflected in the consolidated statement of operations.

(c) Concentrates, bullion and metals —
Consistent with industry practice, the company records as revenue the value of production of concentrates, bullion, and metals awaiting settlement, in transit and on hand at estimated net returns under sales contracts.

(d) Property, plant and equipment —
Additions to property, plant and equipment are recorded at cost and include previously deferred exploration and development expenditures on properties which have been brought into production. Depreciation and depletion thereon is provided at rates designed to write off the costs over their estimated useful lives which, in the case of property, plant and equipment of Mogul of Ireland Limited have been determined on units of production based on estimated reserves. Substantially all other fixed assets are being depreciated in equal annual amounts over their estimated useful lives.

(e) Exploration and development expenditures —
Minerals —
Mineral exploration and development expenditures are charged against current earnings unless they relate to interests in properties where the reserves have the potential of being economically recoverable, in which case the expenditures are deferred. Upon disposal or abandonment of such interests, the net gain or loss is reflected in the consolidated statement of operations. If the properties are brought into production, deferred exploration and development expenditures relating thereto are reclassified with property, plant and equipment and amortized as explained in note 1(d).

Oil and gas —
As explained in note 4, Agnew Lake earned an interest in certain gas and oil properties during the year through a joint venture agreement with Noranda Mines Limited.

The company has adopted the full cost method of accounting for its oil and gas activities through the joint venture, whereby all costs relating to the exploration for and development of oil and gas reserves are capitalized. Such costs include lease acquisition costs, geological and geophysical expenses, carrying charges on non-producing properties and costs of drilling both productive and non-productive wells.

Substantially all of the gas and oil properties held by the joint venture are considered by management to be in the exploratory or development stage and accordingly, all expenditures (less revenues) incurred to December 31, 1977, including interest on funds borrowed to finance the company's participation, are deferred in the consolidated accounts. These costs will be amortized to income by the unit of production method based on estimated proven gas and oil reserves once a commercial level of production is attained.

(f) Income taxes —
The company follows the tax allocation method of accounting for income taxes. Under this method, timing differences between reported and taxable income (relating primarily to exploration and development expenditures claimed for tax purposes in excess of amounts written off in the accounts and capital cost allowances claimed for tax purposes in excess of depreciation recorded in the accounts) result in deferred income taxes.

2. **Agnew Lake**

(a) As explained in the 1976 consolidated financial statements, Agnew Lake Joint Venture, in whcih Agnew Lake Mines Limited ("Agnew Lake") has a 90% interest, commenced development, in that year, of a production unit with an estimated annual capacity of 1,000,000 pounds of uranium concentrate at its Agnew Lake property. It was estimated at that time that production would commence by mid-1977 and that Agnew Lake's share of additional costs to bring the facility into production would amount to approximately $13,500,000. This would have resulted in Agnew Lake's share of total preproduction costs amounting to approximately $47,400,000.

As of December 31, 1977, due to development and related problems, the project has not yet achieved a commercial level of production. Agnew Lake's share of accumulated preproduction expenditures, all of which have been deferred, now total $61,718,000 and consist of the following:

	Balance January 1, 1977	Additions during the year	Balance December 31, 1977
Expenditures on property, plant and equipment	$14,506,000	$ 9,117,000	$23,623,000
Expenditures for exploration, development and other expenditures	17,755,000	19,346,000	37,101,000
Bank interest (net of interest earned on escrowed funds)	1,612,000	2,277,000	3,889,000
	33,873,000	30,740,000	64,613,000
Less value of uranium produced during preproduction period		2,895,000	2,895,000
	$33,873,000	$27,845,000	$61,718,000

Current yields of uranium concentrate from the extraction process being employed are substantially less than the level required to ensure recovery, through profitable operations, of costs expended to date and still to be incurred, or to discharge the obligations set out in note 2(b) and (d) below. However, yields have been improving in recent months and management expects to be able to report, during the next six months, that the extraction process designed for this operation will function as expected. It is presently estimated that Agnew Lake's share of costs (net of production revenues) for 1978 will not exceed $10,000,000.

(b) During the year Agnew Lake borrowed, and delivered to its customers, an additional 1,140,000 pounds of uranium concentrate from Eldorado Nuclear Limited ("Eldorado") under the terms of a 1976 loan agreement. This, together with the 600,000 pounds of concentrate borrowed and delivered in 1976, brings the total uranium borrowings at December 31, 1977, to 1,740,000 pounds. In addition, Agnew Lake has exercised an option to borrow the remaining 260,000 pounds of uranium concentrate under option for deliveries during 1978. Agnew Lake has four years from the dates of delivery to return, in kind, the 2,000,000 pounds of borrowed concentrates.

Under the terms of the agreement, Agnew Lake must pay interest on the loan value of borrowed concentrate (the loan value being the price at which it sells the concentrate to its customers) at a rate equal to that charged from time to time by the Federal Government on five-year loans to Crown corporations (currently 8⅛%). In addition, Agnew Lake was required to pay a standby fee (1977 — $188,000; 1976 — $93,000) at an annual rate of ½ of 1% on the loan value of unloaned concentrate. The agreement also provides that proceeds from the sale of borrowed concentrates, in excess of 1,000,000 pounds, be placed in escrow with a Canadian chartered bank until such concentrate is returned in kind. At December 31, 1977 a total of $34,065,000 was lodged with a bank in the form of term deposits and is included in the consolidated balance sheet as a non-current asset.

The interest payable to Eldorado under the loan agreement is recorded as a preproduction cost while interest received by Agnew Lake, from the funds in escrow, is applied as a credit to preproduction costs.

If Agnew Lake should be unable to meet its obligations to return the borrowed concentrate in kind, Eldorado may purchase concentrate from an outside party and Agnew Lake must reimburse Eldorado for all costs related to the purchase. As collateral for the loan, Agnew Lake has given Eldorado a debenture of $200 million which is secured by a fixed and floating charge on all of its assets and undertakings. Agnew Lake's assets amounted to $140,959,000 at December 31, 1977.

Kerr Addison Mines Limited has guaranteed all obligations of Agnew Lake under this loan agreement. As part of the guarantee, Kerr Addison Mines Limited has agreed to deposit up to a maximum of 1,300,000 shares of Noranda Mines Limited with a trustee as security for repayment by Agnew Lake of its commitments under the loan agreement described above. The number of shares to be lodged is dependent upon the loan value of borrowed concentrate and the market value of Noranda shares. At December 31, 1977 the maximum 1,300,000 shares of Noranda were lodged with a trustee.

(c) The proceeds from the sale of borrowed concentrates are included in the consolidated balance sheet at December 31, 1977 as deferred revenue in the amount of $76,187,000. After Agnew Lake commences commercial production, the deferred revenue less production costs will be included in operations as the borrowed concentrate is repaid.

(d) In addition to its obligation to return the 2,000,000 pounds of borrowed concentrate to Eldorado, Agnew Lake has firm commitments to deliver 1,530,000 pounds of uranium concentrate to customers during the period 1978-1981.

3. **Mogul of Ireland Limited**

The selling price of this subsidiary's main product, zinc, declined substantially during 1977 and subsequent thereto. The present level of prices is not sufficient to cover total costs of mining including depreciation, depletion and

amortization. The recovery of the carrying value of the company's 75% share of Mogul's assets, net of liabilities, (included in the consolidated balance sheet at December 31, 1977 at approximately $7,500,000) will be dependent, among other things, on appropriate increases in metal market prices during the remaining life of the mine which, based on current reserves, is estimated to be between four to six years.

4. **Gas and oil properties**

Agnew Lake entered into a joint venture agreement with Noranda Mines Limited ("Noranda") effective April 1, 1977, whereby Agnew Lake agreed to expend $33.75 million during 1977 on gas and oil exploration, development and land acquisition to earn a 20% interest in Noranda's gas and oil properties and assets which are held by Canadian Hunter Exploration Limited ("Canadian Hunter") as trustee.

Subsequently, Petromark Minerals Ltd. ("Petromark") entered into a joint venture agreement with Noranda and Agnew Lake effective July 1, 1977 whereby Petromark agreed to spend $28.0 million during 1977 and 1978 on exploration, development and land acquisition within the Canadian Hunter programme to earn a 10% interest (5 percentage points of Noranda's 80 percentage points and 5 percentage points of Agnew Lake's 20 percentage points) in the gas and oil properties and assets held by Noranda and Agnew Lake through Canadian Hunter.

Noranda and Agnew Lake have agreed that one-half of Petromark's expenditure commitment, or $14 million, will be applied to reduce Agnew Lake's original expenditure commitment of $33.75 million under the Noranda/Agnew Lake joint venture agreement to $19.75 million. Payments made by Petromark during 1977 amounted to $8.0 million. The balance of $6.0 million was advanced by Agnew Lake on Petromark's behalf and is included in the consolidated balance sheet as an account receivable from Petromark.

Agnew Lake's net 15% interest (which assumes Petromark completes the earning of its 10% interest during 1978) in these gas and oil properties is included in the consolidated balance sheet as deferred exploration and development expenditures which comprises:

Original expenditure commitment to acquire 20% interest		$33,750,000
Less reduction of original commitment on entry of Petromark		14,000,000
Revised expenditure commitment to acquire 15% interest		19,750,000
Share of additional joint venture expenditures		1,259,000
Contribution to joint venture expenditures		21,009,000
Less:		
Share of proceeds on sale of property interest	990,000	
Share of net production revenues	302,000	1,292,000
		19,717,000
Bank interest		1,036,000
		$20,753,000

In the event that Petromark does not complete its expenditure commitment during 1978 Agnew Lake will be required to expend on the properties, one-half of any shortfall in which case its interest in the joint venture would be increased according to an agreed upon formula.

It is expected that amortization of these deferred expenditures will commence on January 1, 1979 on the basis that the properties will yield a commercial level of production during 1979.

5. **Grum Project**

Current studies at the 60% owned Grum Joint Venture — a zinc-lead-silver property in the Yukon — will be suspended in early 1978 at which time accumulated deferred exploration and development expenditures on the Grum property and on the adjacent Vangorda and Swim Lake properties are expected to amount to approximately $6,400,000 (net of related deferred income taxes of $2,600,000). Based on the current unfavourable metal market conditions the company has concluded that it is not economically feasible to bring the properties into production at this time. Management believes that the reserves on these properties have the potential of being economically recoverable, but their development at some future date will be dependent upon there being a substantial improvement in metal market prices.

6. **Investments in other mining companies**

These investments represent shares of other mining companies which are being held on a relatively long-term basis. Such investments, which were carried at cost of $27,361,000 at December 31, 1977 and 1976, had aggregate quoted market values of approximately $47,728,000 at December 31, 1977 and $52,839,000 at December 31, 1976 (computed by pricing the individual holdings at the closing market quotations). Included in this category are 1,600,000 shares of Noranda Mines Limited, carried at a cost of $21,727,000 at December 31, 1977 and 1976, which had a quoted market value of $39,792,000 at December 31, 1977 and $45,760,000 at December 31, 1976. The market values of these investments do not necessarily represent the value of these holdings, which may be more or less than that indicated by the market quotations.

At December 31, 1977, 1,300,000 shares of Noranda Mines Limited had been pledged as security for repayment, by Agnew Lake Mines Limited, of its obligations under the loan agreement outlined in note 2(b).

7. **Write-down in carrying value of property, plant and equipment**

The Blue Hill Joint Venture, a zinc/copper mine, located in the State of Maine, U.S.A. was closed in mid-October, 1977 due to unfavourable base metal market conditions. In 1977 a further provision of $512,000 was made to reduce property, plant and equipment to a nominal value. The mining plant is being held on a care and maintenance basis.

8. **Share capital**

(a) Details of share capital are as follows:

	Number of shares
Authorized —	
Class A shares without par value	11,500,000
Class B shares without par value	999,000
Common shares without par value	1,000
	12,500,000

	1977	1976
Issued and outstanding —		
Class A	9,000,386	8,987,884
Class B	543,063	550,065
	9,543,449	9,537,949

The Class A and Class B shares are interchangeable one to another and participate equally with the common shares as to dividends and in all other respects. The only distinction is that for Class B shares, the directors may provide for the payment, in whole or in part, of a cash dividend out of tax-paid undistributed income on hand or out of 1971 capital surplus on hand (as defined in the Income Tax Act). At December 31, 1977, the company had capital surplus on hand (as defined) but had no 1971 undistributed income on hand (as defined).

As a result of recent amendments to the Income Tax Act (Canada), as of January 1, 1979, the company will no longer be able to pay dividends out of 1971 capital surplus on hand (as defined).

(b) In 1977, 5,500 Class A shares were issued under the company's stock option plan for $61,000 cash. At December 31, 1977, options on 34,500 shares were outstanding, exercisable at prices varying from $8.14 to $13.42 for periods up to 1986.

9. **Contingent liabilities**

(a) New government environmental legislation and regulations may require that the company incur future expenditures for the rehabilitation of mining properties that have been closed. While it is not yet possible to develop specific plans for such rehabilitation or costs related thereto, a provision of $1,400,000 (net of related deferred income taxes of $600,000) has been included in the consolidated statement of operations for 1977.

No significant expenditure is expected for 1978 and accordingly this provision is included in the consolidated balance sheet as a non-current liability.

(b) Mogul of Ireland Limited is contingently liable with respect to accounts receivable discounted in the amount of $698,000 at December 31, 1977.

10. **Federal government Anti-Inflation Program**

The company is subject to, and believes it has complied with, controls on prices, profits, employee compensation and shareholder dividends under the Federal Anti-Inflation Program.

Under existing regulations, dividends to the company's Class A and Class B shareholders during the year ending October 13, 1978 may not exceed $.80 per share.

11. **Statutory information**

(a) Total direct remuneration paid by the company and its subsidiaries to directors and senior officers during the year ended December 31, 1977 amounted to $426,000 ($378,000 in 1976).

(b) Included in accounts and interest receivable at December 31, 1977 are housing loans aggregating $59,000 to certain officers of the company.

Printed in Canada.